

# Death Rate among Surgical Inpatients with Serious Treatable Complications

## Patient Safety Indicators #4 Technical Specifications

### Provider-Level Indicator

AHRQ Quality Indicators, Version 4.3, August 2011

### Numerator

All discharges with a disposition of “deceased” (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

### Denominator

All surgical discharges age 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium) defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure, principal procedure within 2 days of admission OR admission type of elective (ATYPE=3) with potential complications of care listed in Death among Surgical definition (e.g., pneumonia, DVT/PE, sepsis, shock/cardiac arrest, or GI hemorrhage/acute ulcer).

See *Patient Safety Indicators Appendices*:

- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

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Exclude cases:

- age 90 years and older
- transferred to an acute care facility (DISP = 2)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)
- with diagnosis of influenza

**NOTE: Additional exclusion criteria are specific to each diagnosis.**

### FTR 2 – DVT/PE

A diagnosis of pulmonary embolism or deep vein thrombosis in any secondary diagnosis field.

#### ICD-9-CM Pulmonary embolism and deep vein thrombosis diagnosis codes:

Pulmonary Embolism		41519	PULMONARY EMBOLISM AND INFARCTION, OTHER
4151	PULMONARY EMBOLISM AND INFARCTION	Deep Vein Thrombosis	
41511	IATROGENIC PULMONARY EMBOLISM AND INFARCTION		

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45111	PHLEBITIS AND THROMBOSIS OF FEMORAL VEIN (DEEP) (SUPERFICIAL)	45340	DVT-EMBLSM LOWER EXT NOS (OCT04)
45119	PHLEBITIS AND THROMBOPHLEBITIS OF DEEP VESSEL OF LOWER EXTREMITIES – OTHER	45341	DVT-EMB PROX LOWER EXT (OCT04)
45181	PHLEBITIS AND THROMBOPHLEBITIS OF ILIAC VEIN	45342	DVT-EMB DISTAL LOWER EXT (OCT04)

Exclude cases:

- with a diagnosis of pulmonary embolism or deep vein thrombosis in the principal diagnosis field
- with a diagnosis of abortion-related or postpartum obstetric pulmonary embolism in the principal diagnosis field
- with diagnosis of influenza

**ICD-9-CM Abortion-related and postpartum obstetric pulmonary Eembolism diagnosis codes:**

63460	SPONTANEOUS ABORTION W/ EMBOLISM - UNSPECIFIED	63762	ABORTION NOS W/ EMBOLISM - COMPLETE
63461	SPONTANEOUS ABORTION W/ EMBOLISM - INCOMPLETE	6386	ATTEMPTED ABORTION W/ EMBOLISM
63462	SPONTANEOUS ABORTION W/ EMBOLISM - COMPLETE	6396	POSTABORTION EMBOLISM
63560	LEGAL ABORTION W/ EMBOLISM - UNSPECIFIED	67320	OBSTETRICAL BLOOD-CLOT EMBOLISM, UNSPECIFIED AS TO EPISODE OF CARE OR NOT APPLICABLE
63561	LEGAL ABORTION W/ EMBOLISM - INCOMPLETE	67321	OBSTETRICAL BLOOD-CLOT EMBOLISM, DELIVERED, W/ OR W/O MENTION OF ANTEPARTUM CONDITION
63562	LEGAL ABORTION W/ EMBOLISM - COMPLETE	67322	OBSTETRICAL BLOOD-CLOT EMBOLISM, DELIVERED, W/ MENTION OF POSTPARTUM COMPLICATION
63660	ILLEGAL ABORTION W/ EMBOLISM - UNSPECIFIED	67323	OBSTETRICAL BLOOD-CLOT EMBOLISM, ANTEPARTUM CONDITION OR COMPLICATION
63661	ILLEGAL ABORTION W/ EMBOLISM - INCOMPLETE	67324	OBSTETRICAL BLOOD-CLOT EMBOLISM, POSTPARTUM CONDITION OR COMPLICATION
63662	ILLEGAL ABORTION W/ EMBOLISM - COMPLETE		
63760	ABORTION NOS W/ EMBOLISM - UNSPECIFIED		
63761	ABORTION NOS W/ EMBOLISM - INCOMPLETE		

**ICD-9-CM Influenza diagnosis codes:**

48801	FLU DT IDEN AVIAN W PNEU	48811	FLU DT H1N1 W PNEU
48802	FLU DT AVIAN W OTH RESP	48812	FLU DT H1N1 W OTH RESP
48809	FLU DT AVIAN MANIFEST NEC	48819	FLU DT H1N1 MANIFEST NEC

## FTR 3 – Pneumonia

A diagnosis of pneumonia in any secondary diagnosis field.

**ICD-9-CM Pneumonia diagnosis codes:**

4820	PNEUMONIA DUE TO KLEBSIELLA PNEUMONIAE	48231	PNEUMONIA DUE TO STREPTOCOCCUS – GROUP A
4821	PNEUMONIA DUE TO PSEUDOMONAS	48232	PNEUMONIA DUE TO STREPTOCOCCUS – GROUP B
4822	PNEUMONIA DUE TO HEMOPHILUS INFLUENZAE [H. INFLUENZAE]	48239	PNEUMONIA DUE TO STREPTOCOCCUS – OTHER STREPTOCOCCUS
4823	PNEUMONIA DUE TO STREPTOCOCCUS	4824	PNEUMONIA DUE TO STAPHYLOCOCCUS
48230	PNEUMONIA DUE TO STREPTOCOCCUS – STREPTOCOCCUS, UNSPECIFIED		

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48240	PNEUMONIA DUE TO STAPHYLOCOCCUS – PNEUMONIA DUE TO STAPHYLOCOCCUS, UNSPECIFIED	48283	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – OTHER GRAM-NEGATIVE BACTERIA
48241	METHICILLIN SUSCEPTIBLE PNEUMONIA DUE TO STAPHYLOCOCCUS AUREUS (OCT08)	48284	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – LEGIONNAIRES' DISEASE
48242	METHICILLIN RESISTANT PNEUMONIA DUE TO STAPHYLOCOCCUS AUREUS (OCT08)	48289	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – OTHER SPECIFIED BACTERIA
48249	PNEUMONIA DUE TO STAPHYLOCOCCUS – OTHER STAPHYLOCOCCUS PNEUMONIA	4829	BACTERIAL PNEUMONIA UNSPECIFIED
4828	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA	485	BRONCHOPNEUMONIA, ORGANISM UNSPECIFIED
48281	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – ANAEROBES	486	PNEUMONIA, ORGANISM UNSPECIFIED
48282	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – EXCHERICHIA COLI [E COLI]	5070	DUE TO INHALATION OF FOOD OR VOMITUS
		514	PULMONARY CONGESTION AND HYPOSTASIS

Exclude cases:

- with a diagnosis of pneumonia or respiratory complications in the principal diagnosis field
- with any diagnosis code for viral pneumonia
- with diagnosis of influenza
- with any diagnosis of or procedure for immunocompromised state
- MDC 4 (diseases/disorders of respiratory system)
- with a lung cancer procedure

See *Patient Safety Indicators Appendices*:

- Appendix I – Immunocompromised State Diagnosis and Procedure Codes

**ICD-9-CM Respiratory complications diagnosis code:**

9973 RESPIRATORY COMPLICATIONS

**ICD-9-CM Viral pneumonia diagnosis codes:**

4800	ADENOVIRAL PNEUMONIA	4847	PNEUMONIA IN OTHER SYSTEMIC MYCOSES
4801	RESPIRATORY SYNCYTIAL VIRAL PNEUMONIA	4848	PNEUMONIA IN INFECTIOUS DISEASE NOT ELSEWHERE CLASSIFIED
4802	PARAINFLUENZA VIRAL PNEUMONIA	4870	INFLUENZA W/ PNEUMONIA
4803	PNEUMONIA DUE TO SARS (OCT03)	4871	FLU W/ RESPIRATORY MANIFEST NOT ELSEWHERE CLASSIFIED
4808	VIRAL PNEUMONIA NOT ELSEWHERE CLASSIFIED	4878	FLU W/ MANIFESTATION NOT ELSEWHERE CLASSIFIED
4809	VIRAL PNEUMONIA UNSPECIFIED	488	FLU D/T AVIAN FLU VIRUS
481	PNEUMOCOCCAL PNEUMONIA	4880	INFLUENZA DUE TO IDENTIFIED AVIAN INFLUENZA VIRUS (OCT09)
4830	PNEUMONIA DUE TO MYCOPLASMA PNEUMONIAE	4881	INFLUENZA DUE TO IDENTIFIED NOVEL H1N1 INFLUENZA VIRUS (OCT09)
4831	PNEUMONIA DUE TO CHLAMYDIA	48801	FLU DT IDEN AVIAN W PNEU
4838	PNEUMONIA DUE TO OTHER SPECIFIED ORGANISM	48802	FLU DT AVIAN W OTH RESP
4841	PNEUMONIA IN CYTOMEGALIC INCLUSION DISEASE	48809	FLU DT AVIAN MANFAST NEC
4843	PNEUMONIA IN WHOOPING COUGH	48811	FLU DT H1N1 W OTH RESP
4845	PNEUMONIA IN ANTHRAX	48812	FLU DT H1N1 W OTH RESP
4846	PNEUMONIA IN ASPERGILLOSIS	48819	FLU DT H1N1 MANFEST NEC

**ICD-9-CM Influenza diagnosis codes:**

48801	FLU DT IDEN AVIAN W PNEU	48802	FLU DT AVIAN W OTH RESP
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48809 FLU DT AVIAN MANFRST NEC  
48811 FLU DT H1N1 W PNEU

48812 FLU DT H1N1 W OTH RESP  
48819 FLU DT H1N1 MANFEST NEC

**ICD-9-CM Lung cancer procedure codes:**

3239 OTH SEG LUNG RESECT NOS  
3249 LOBECTOMY OF LUNG NEC

3259 OTHER PNEUMONECTOMY NOS

## FTR 4 – Sepsis

A diagnosis of sepsis in any secondary diagnosis field.

**ICD-9-CM Sepsis diagnosis codes:**

0380 STREPTOCOCCAL SEPTICEMIA  
0381 STAPHYLOCOCCAL SEPTICEMIA  
03810 STAPHYLOCOCCAL SEPTICEMIA,  
UNSPECIFIED  
03811 METHICILLIN SUSCEPTIBLE  
STAPHYLOCOCCUS AUREUS  
SEPTICEMIA (OCT08)  
03812 METHICILLIN RESISTANT  
STAPHYLOCOCCUS AUREUS  
SEPTICEMIA (OCT08)  
03819 OTHER STAPHYLOCOCCAL  
SEPTICEMIA  
0382 PNEUMOCOCCAL SEPTICEMIA  
(STREPTOCOCCUS PNEUMONIAE  
SEPTICEMIA)  
0383 SEPTICEMIA DUE TO ANAEROBES  
03840 GRAM-NEGATIVE ORGANISM,  
UNSPECIFIED

03841 HEMOPHILUS INFLUENZAE  
03842 ESCHERICHIA COLI  
03843 PSEUDOMONAS  
03844 SERRATIA  
03849 SEPTICEMIA DUE TO OTHER GRAM-  
NEGATIVE ORGANISMS  
0388 OTHER SPECIFIED SEPTICEMIAS  
0389 UNSPECIFIED SEPTICEMIA  
78552 SEPTIC SHOCK (OCT03)  
78559\* SHOCK W/O MENTION OF TRAUMA-  
OTHER  
99591 SYSTEMIC INFLAMMATORY RESPONSE  
SYNDROME DUE TO INFECTIOUS  
PROCESS W/O ORGAN DYSFUNCTION  
99592 SYSTEMIC INFLAMMATORY RESPONSE  
SYNDROME DUE TO INFECTIOUS  
PROCESS W/ ORGAN DYSFUNCTION  
9980 POSTOPERATIVE SHOCK

\*No longer valid in FY2005

Exclude cases:

- with a diagnosis of sepsis in the principal diagnosis field
- with a principal diagnosis of infection
- with any diagnosis of or procedure for immunocompromised state
- with diagnosis of influenza
- with a length of stay of less than 4 days

See *Patient Safety Indicators Appendices*:

- Appendix F – Infection Diagnosis Codes
- Appendix I – Immunocompromised State Diagnosis and Procedure Codes

**ICD-9-CM Influenza diagnosis codes:**

48801 FLU DT IDEN AVIAN W PNEU  
48802 FLU DT AVIAN W OTH RESP  
48809 FLU DT AVIAN MANFEST NEC

48811 FLU DT H1N1 W PNEU  
48812 FLU DT H1N1 W OTH RESP  
48819 FLU DT H1N1 MANFEST NEC

## FTR 5 – Shock or Cardiac Arrest

A diagnosis of shock or cardiac arrest in any secondary field or any procedure for shock or cardiac arrest.

**ICD-9-CM Shock or cardiac arrest diagnosis codes:**

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4275	CARDIAC ARREST	66913	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – ANTEPARTUM CONDITION OR COMPLICATION
6395	COMPLICATIONS FOLLOWING ABORTION AND ECTOPIC AND MOLAR PREGNANCIES, SHOCK	66914	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – POSTPARTUM CONDITION OR COMPLICATION
66910	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – UNSPECIFIED AS TO EPISODE OF CARE OR NOT APPLICABLE	7855	SHOCK NOS
66911	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – DELIVERED, W/ OR W/O MENTION OF ANTEPARTUM CONDITION	78550	SHOCK, UNSPECIFIED
66912	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – DELIVERED, W/ MENTION OF POSTPARTUM COMPLICATION	78551	CARDIOGENIC SHOCK
		78552	SEPTIC SHOCK (OCT03)
		78559	SHOCK W/O MENTION OF TRAUMA- OTHER
		7991	RESPIRATORY ARREST
		9950	OTHER ANAPHYLACTIC SHOCK
		9954	SHOCK DUE TO ANESTHESIA
		9980	POSTOPERATIVE SHOCK
		9994	ANAPHYLACTIC SHOCK DUE TO SERUM

**ICD-9-CM Shock or Cardiac Arrest procedure codes:**

9393	NONMECHANICAL METHODS OF RESUSCITATION	9963	CLOSED CHEST CARDIAC MASSAGE
9960	CARDIOPULMONARY RESUSCITATION, NOS		

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Exclude cases

- with a principal diagnosis of shock or cardiac arrest
- with a principal diagnosis of trauma
- with a principal diagnosis of hemorrhage or GI hemorrhage
- with a principal diagnosis of abortion-related shock
- with diagnosis of influenza
- with a lung cancer procedure
- MDC 4 (diseases/disorders of respiratory system)
- MDC 5 (diseases/disorders of circulatory system)

See *Patient Safety Indicators Appendices*:

- Appendix G – Trauma Diagnosis Codes

**ICD-9-CM Hemorrhage diagnosis codes:**

2851	ACUTE POSTHEMORRHAGIC ANEMIA	9582	CERTAIN EARLY COMPLICATIONS OF TRAUMA, SECONDARY AND RECURRENT HEMORRHAGE
4590	OTHER DISORDERS OF CIRCULATORY SYSTEM, HEMORRHAGE, UNSPECIFIED	99811	HEMORRHAGE COMPLICATING A PROCEDURE
56881	HEMOPERITONEUM (NONTRAUMATIC)		

**ICD-9-CM Gastrointestinal (GI) Hemorrhage diagnosis codes:**

4560	ESOPHAGEAL VARICES W/ BLEEDING	53121	GASTRIC ULCER ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
45620	ESOPHAGEAL VARICES IN DISEASES CLASSIFIED ELSEWHERE W/ BLEEDING	53140	GASTRIC ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION
5307	GASTROESOPHAGEAL LACERATION – HEMORRHAGE SYNDROME	53141	GASTRIC ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/ OBSTRUCTION
53082	ESOPHAGEAL HEMORRHAGE	53160	GASTRIC ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53100	GASTRIC ULCER ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION		
53101	GASTRIC ULCER ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION		
53120	GASTRIC ULCER ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION		

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53161	GASTRIC ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53420	GASTROJEJUNAL ULCER, ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53200	DUODENAL ULCER ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53421	GASTROJEJUNAL ULCER, ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53201	DUODENAL ULCER ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53440	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION
53220	DUODENAL ULCER ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53441	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/ OBSTRUCTION
53221	DUODENAL ULCER ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53460	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53240	DUODENAL ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53461	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53241	DUODENAL ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/ OBSTRUCTION	53501	GASTRITIS AND DUODENITIS, ACUTE GASTRITIS W/ HEMORRHAGE
53260	DUODENAL ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53511	GASTRITIS AND DUODENITIS, ATROPHIC GASTRITIS W/ HEMORRHAGE
53261	DUODENAL ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53521	GASTRITIS AND DUODENITIS, GASTRIC MUCOSAL HYPERTROPHY, W/ HEMORRHAGE
53300	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53531	GASTRITIS AND DUODENITIS, ALCOHOLIC GASTRITIS, W/ HEMORRHAGE
53301	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53541	GASTRITIS AND DUODENITIS, OTHER SPECIFIED GASTRITIS – W/ HEMORRHAGE
53320	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53551	GASTRITIS AND DUODENITIS, UNSPECIFIED GASTRITIS AND GASTRODUODENITIS – W/ HEMORRHAGE
53321	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53561	GASTRITIS AND DUODENITIS, DUODENITIS – W/ HEMORRHAGE
53340	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53783	OTHER SPECIFIED DISORDERS OF STOMACH AND DUODENUM, ANGIODYSPLASIA OF STOMACH AND DUODENUM – W/ HEMORRHAGE
53341	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/ OBSTRUCTION	53784	DIEULAFOY LESION (HEMORRHAGIC) OF STOMACH AND DUODENUM
53360	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	56202	DIVERTICULOSIS OF SMALL INTESTINE – W/ HEMORRHAGE
53361	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	56203	DIVERTICULITIS OF SMALL INTESTINE – W/ HEMORRHAGE
53400	GASTROJEJUNAL ULCER, ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	56212	DIVERTICULOSIS OF COLON – W/ HEMORRHAGE
53401	GASTROJEJUNAL ULCER, ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	56213	DIVERTICULITIS OF COLON – W/ HEMORRHAGE
		5693	HEMORRHAGE OF RECTUM AND ANUS
		56985	ANGIODYSPLASIA OF INTESTINE - W/ HEMORRHAGE
		56986	DIEULAFOY LESION (HEMORRHAGIC) OF INTESTINE
		5780	GASTROINTESTINAL HEMORRHAGE, HEMATEMESIS
		5781	GASTROINTESTINAL HEMORRHAGE, BLOOD IN STOOL

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5789 GASTROINTESTINAL HEMORRHAGE,  
HEMORRHAGE OF GASTROINTESTINAL  
TRACT, UNSPECIFIED

**ICD-9-CM Abortion-related shock diagnosis codes:**

63450	SPONTANEOUS ABORTION W/ SHOCK - UNSPECIFIED	63650	ILLEGAL ABORTION W/ SHOCK - UNSPECIFIED
63451	SPONTANEOUS ABORTION W/ SHOCK - INCOMPLETE	63651	ILLEGAL ABORTION W/ SHOCK - INCOMPLETE
63452	SPONTANEOUS ABORTION W/ SHOCK - COMPLETE	63652	ILLEGAL ABORTION W/ SHOCK - COMPLETE
63550	LEGAL ABORTION W/ SHOCK - UNSPECIFIED	63750	ABORTION NOS W/ SHOCK - UNSPECIFIED
63551	LEGAL ABORTION W/ SHOCK - INCOMPLETE	63751	ABORTION NOS W/ SHOCK - INCOMPLETE
63552	LEGAL ABORTION W/ SHOCK - COMPLETE	63752	ABORTION NOS W/ SHOCK - COMPLETE
		6385	ATTEMPTED ABORTION W/ SHOCK

**ICD-9-CM Influenza diagnosis codes:**

48801	FLU DT IDEN AVIAN W PNEU	48811	FLU DT H1N1 W PNEU
48802	FLU DT AVIAN W OTH RESP	48812	FLU DT H1N1 W OTH RESP
48809	FLU DT AVIAN MANFEST NEC	48819	FLU DT H1N1 MANFEST NEC

**ICD-9-CM Lung cancer procedure codes:**

3239	OTH SEG LUNG RESECT NOS	3259	OTHER PNEUMONECTOMY NOS
3249	LOBECTOMY OF LUNG NEC		

## FTR 6 – GI Hemorrhage/Acute Ulcer

A diagnosis of hemorrhage or acute ulcer in any secondary field.

**ICD-9-CM GI Hemorrhage/acute ulcer diagnosis codes:**

4560	ESOPHAGEAL VARICES W/ BLEEDING	53190	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION
45620	ESOPHAGEAL VARICES IN DISEASES CLASSIFIED ELSEWHERE W/ BLEEDING	53191	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION
5307	GASTROESOPHAGEAL LACERATION- HEMORRHAGE SYNDROME		
53082	ESOPHAGEAL HEMORRHAGE		
<hr/> Gastric ulcer <hr/>		<hr/> Duodenal ulcer <hr/>	
53100	ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53200	ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION
53101	ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53201	ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION
53110	ACUTE W/ PERFORATION – W/O MENTION OF OBSTRUCTION	53210	ACUTE W/ PERFORATION – W/O MENTION OF OBSTRUCTION
53111	ACUTE W/ PERFORATION – W/ OBSTRUCTION	53211	ACUTE W/ PERFORATION – W/ OBSTRUCTION
53120	ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53220	ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53121	ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53221	ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53130	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION	53230	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION
53131	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION	53231	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION

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53290	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION	53421	ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53291	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION	53430	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION
<u>Peptic ulcer</u>		53431	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION
53300	SITE UNSPECIFIED ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53490	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION
53301	SITE UNSPECIFIED ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53491	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION
53310	SITE UNSPECIFIED ACUTE W/ PERFORATION – W/O MENTION OF OBSTRUCTION	<u>Gastritis and duodenitis:</u>	
53311	SITE UNSPECIFIED ACUTE W/ PERFORATION – W/ OBSTRUCTION	53501	ACUTE GASTRITIS – W/ HEMORRHAGE
53320	SITE UNSPECIFIED ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53511	ATROPHIC GASTRITIS – W/ HEMORRHAGE
53321	SITE UNSPECIFIED ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53521	GASTRIC MUCOSAL HYPERTROPHY – W/ HEMORRHAGE
53330	SITE UNSPECIFIED ACUTE W/O MENTION OF HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53531	ALCOHOLIC GASTRITIS – W/ HEMORRHAGE
53331	SITE UNSPECIFIED ACUTE W/O MENTION OF HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53541	OTHER SPECIFIED GASTRITIS – W/ HEMORRHAGE
53390	SITE UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION	53551	UNSPECIFIED GASTRITIS AND GASTRODUODENITIS – W/ HEMORRHAGE
53391	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION	53561	DUODENITIS – W/ HEMORRHAGE
<u>Gastrojejunal ulcer</u>		53783	ANGIODYSPLASIA OF STOMACH AND DUODENUM – W/ HEMORRHAGE
53400	ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53784	DIEULAFOY LESION (HEMORRHAGIC) OF STOMACH AND DUODENUM
53401	ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	56202	DIVERTICULOSIS OF SMALL INTESTINE – W/ HEMORRHAGE
53410	ACUTE W/ PERFORATION – W/O MENTION OF OBSTRUCTION	56203	DIVERTICULITIS OF SMALL INTESTINE – W/ HEMORRHAGE
53411	ACUTE W/ PERFORATION – W/ OBSTRUCTION	56212	DIVERTICULOSIS OF COLON – W/ HEMORRHAGE
53420	ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	56213	DIVERTICULITIS OF COLON – W/ HEMORRHAGE
		5693	HEMORRHAGE OF RECTUM AND ANUS
		56985	ANGIODYSPLASIA OF INTESTINE – W/ HEMORRHAGE
		56986	DIEULAFOY LESION (HEMORRHAGIC) OF INTESTINE
		5780	HEMATEMESIS
		5781	BLOOD IN STOOL
		5789	HEMORRHAGE OF GASTROINTESTINAL TRACT, UNSPECIFIED

Exclude cases:

- with a principal diagnosis of hemorrhage or acute ulcer
- with a principal diagnosis of trauma
- with a principal diagnosis of alcoholism
- with a principal diagnosis of anemia
- with diagnosis of influenza
- MDC 6 (diseases and disorders of the digestive system)



- MDC 7 (diseases and disorders of the hepatobiliary system and pancreas)

See *Patient Safety Indicators Appendices*:

- Appendix G – Trauma Diagnosis Codes

**ICD-9-CM Alcoholism diagnosis codes:**

2910	ALCOHOL WITHDRAWAL DELIRIUM	30392	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE - EPISODIC
2911	ALCOHOL AMNESTIC SYNDROME	30393	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE - IN REMISSION
2912	OTHER ALCOHOLIC DEMENTIA	30500	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE - UNSPECIFIED
2913	ALCOHOL WITHDRAWAL HALLUCINOSIS	30501	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE - CONTINUOUS
2914	IDIOSYNCRATIC ALCOHOL INTOXICATION	30502	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE - EPISODIC
2915	ALCOHOLIC JEALOUSY	30503	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE - IN REMISSION
29181	OTHER SPECIFIED ALCOHOLIC PSYCHOSES, ALCOHOL WITHDRAWAL	4255	ALCOHOLIC CARDIOMYOPATHY
29182	ALCOHOL INDUCED SLEEP DISORDERS (OCT05)	53530	ALCOHOLIC GASTRITIS, W/O MENTION OF HEMORRHAGE
29189	OTHER SPECIFIED ALCOHOLIC PSYCHOSES, OTHER	53531	ALCOHOLIC GASTRITIS, W/ HEMORRHAGE
2919	UNSPECIFIED ALCOHOLIC PSYCHOSIS	5710	ALCOHOLIC FATTY LIVER
30300	ACUTE ALCOHOLIC INTOXICATION - UNSPECIFIED	5711	ACUTE ALCOHOLIC HEPATITIS
30301	ACUTE ALCOHOLIC INTOXICATION - CONTINUOUS	5712	ALCOHOLIC CIRRHOSIS OF LIVER
30302	ACUTE ALCOHOLIC INTOXICATION - EPISODIC	5713	ALCOHOLIC LIVER DAMAGE, UNSPECIFIED
30303	ACUTE ALCOHOLIC INTOXICATION - IN REMISSION	9800	TOXIC EFFECT OF ALCOHOL, ETHYL ALCOHOL
30390	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE - UNSPECIFIED	9809	TOXIC EFFECT OF ALCOHOL, UNSPECIFIED ALCOHOL
30391	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE - CONTINUOUS		

**ICD-9-CM Anemia diagnosis codes:**

2800	SECONDARY TO BLOOD LOSS [CHRONIC]	2851	ACUTE POSTHEMORRHAGIC ANEMIA
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**ICD-9-CM Influenza diagnosis codes:**

48801	FLU DT IDEN AVIAN W PNEU	48811	FLU DT H1N1 W PNEU
48802	FLU DT AVIAN W OTH RESP	48812	FLU DT H1N1 W OTH RESP
48809	FLU DT AVIAN MANFEST NEC	48819	FLU DT H1N1 MANFEST NEC